



1
00:00:53,510 --> 00:00:51,350
and we can see here in the foreground

2
00:00:55,270 --> 00:00:53,520
one of the plant growth chambers

3
00:00:57,029 --> 00:00:55,280
and floating above it from our

4
00:00:59,670 --> 00:00:57,039
perspective is payload commander susan

5
00:01:00,869 --> 00:00:59,680
helms documenting the

6
00:01:03,110 --> 00:01:00,879
plants

7
00:01:04,950 --> 00:01:03,120
via still photos

8
00:01:07,670 --> 00:01:04,960
this particular container

9
00:01:09,910 --> 00:01:07,680
holds four of 20

10
00:01:11,990 --> 00:01:09,920
seedlings some of fur and some of the

11
00:01:13,590 --> 00:01:12,000
loblolly pine

12
00:01:14,789 --> 00:01:13,600
two of each four in each of these

13
00:01:16,149 --> 00:01:14,799

containers

14

00:01:17,590 --> 00:01:16,159

are bent

15

00:01:19,590 --> 00:01:17,600

the other two are the controls in the

16

00:01:21,429 --> 00:01:19,600

experiment are left unbent

17

00:01:22,390 --> 00:01:21,439

samples of both the bent and the unbent

18

00:01:24,070 --> 00:01:22,400

pin

19

00:01:25,670 --> 00:01:24,080

will be cut

20

00:01:27,510 --> 00:01:25,680

on this flight day and another flight

21

00:01:32,149 --> 00:01:27,520

day

22

00:01:35,749 --> 00:01:34,149

those samples will be

23

00:01:37,350 --> 00:01:35,759

preserved

24

00:01:41,030 --> 00:01:37,360

and returned to earth

25

00:01:45,749 --> 00:01:43,270

we can see now members of columbia's

26
00:01:46,789 --> 00:01:45,759
payload crew now preparing to take a

27
00:01:48,149 --> 00:01:46,799
cutting

28
00:01:58,469 --> 00:01:48,159
from

29
00:02:00,230 --> 00:01:58,479
see that two of these seedlings

30
00:02:03,510 --> 00:02:00,240
are in vent positions

31
00:02:05,109 --> 00:02:03,520
this was performed on flight day three

32
00:02:06,630 --> 00:02:05,119
and the control

33
00:02:11,190 --> 00:02:06,640
samples within this plant growth

34
00:02:16,150 --> 00:02:13,110
in this procedure one payload crew

35
00:02:17,750 --> 00:02:16,160
member makes a rough cut of the seedling

36
00:02:20,390 --> 00:02:17,760
while the other payload crew member

37
00:02:22,550 --> 00:02:20,400
stands ready with the vacuum

38
00:02:23,830 --> 00:02:22,560

to remove any potentially hazardous

39

00:02:24,869 --> 00:02:23,840

debris

40

00:02:26,790 --> 00:02:24,879

from

41

00:03:37,990 --> 00:02:26,800

the weightless environment inside the

42

00:03:41,509 --> 00:03:39,670

we can now see payload specialist

43

00:03:43,830 --> 00:03:41,519

jean-jacques favier floating near the

44

00:03:45,990 --> 00:03:43,840

front of the space lab module

45

00:03:48,550 --> 00:03:46,000

in front of the workbench where he is

46

00:03:50,789 --> 00:03:48,560

stowing equipment used to take cuttings

47

00:03:52,309 --> 00:03:50,799

from fur seedlings

48

00:03:53,589 --> 00:03:52,319

as part of the plant growth facility

49

00:03:55,270 --> 00:03:53,599

experiment

50

00:03:57,589 --> 00:03:55,280

we can now see payload specialist

51
00:04:00,390 --> 00:03:57,599
jean-jacques faviere working within the

52
00:04:03,190 --> 00:04:00,400
plant growth facility glove bag

53
00:04:04,949 --> 00:04:03,200
he has isolated a fixation bag

54
00:04:07,670 --> 00:04:04,959
and is now removing

55
00:04:22,230 --> 00:04:10,229
fur seedling samples harvested a few

56
00:04:26,950 --> 00:04:24,710
the purpose of the glove bag is to

57
00:04:28,950 --> 00:04:26,960
provide an additional level of safety

58
00:04:30,790 --> 00:04:28,960
and containing the

59
00:04:32,790 --> 00:04:30,800
chemical fixative used to preserve the

60
00:04:34,310 --> 00:04:32,800
sample

61
00:04:47,030 --> 00:04:34,320
and we can see him now installing the

62
00:04:47,040 --> 00:04:50,310
he will then reinstall

63
00:04:53,590 --> 00:04:51,430

this clip

64

00:04:56,629 --> 00:04:53,600

to seal the opening of the bag through

65

00:04:58,629 --> 00:04:56,639

which the sample was installed

66

00:05:00,150 --> 00:04:58,639

the chemical fixative is contained

67

00:05:45,590 --> 00:05:00,160

within the lower portion of the bag

68

00:05:49,189 --> 00:05:46,950

this is michelle coyden with the

69

00:05:51,590 --> 00:05:49,199

associated press have you noticed

70

00:05:53,909 --> 00:05:51,600

increasing fatigue and short-term memory

71

00:05:56,390 --> 00:05:53,919

loss as the mission goes on

72

00:06:07,110 --> 00:05:56,400

and could this be a major problem on

73

00:06:10,150 --> 00:06:08,710

uh to answer your question i think uh

74

00:06:13,029 --> 00:06:10,160

the crew has been doing exceptionally

75

00:06:14,550 --> 00:06:13,039

well uh it's a 17-day mission now and i

76

00:06:16,070 --> 00:06:14,560

think we're pacing ourselves for right

77

00:06:18,469 --> 00:06:16,080

on target and i don't think we've had

78

00:06:20,390 --> 00:06:18,479

excessive fatigue or any memory loss we

79

00:06:27,590 --> 00:06:20,400

in fact seem to be working better uh

80

00:06:32,309 --> 00:06:29,110

this is mark crowe of the houston

81

00:06:34,390 --> 00:06:32,319

chronicle and my question is for either

82

00:06:36,710 --> 00:06:34,400

tom hendricks or

83

00:06:38,790 --> 00:06:36,720

susan could you just give us a sense

84

00:06:41,029 --> 00:06:38,800

your sense of the success of your

85

00:06:42,390 --> 00:06:41,039

endeavor to this to this point do you

86

00:06:45,990 --> 00:06:42,400

feel like you're accomplishing the

87

00:06:51,350 --> 00:06:48,790

uh yes mark in a nutshell we had a very

88

00:06:52,870 --> 00:06:51,360

very demanding mission that uh from the

89

00:06:54,629 --> 00:06:52,880

very beginning was going to be

90

00:06:56,550 --> 00:06:54,639

challenging just simply because it was

91

00:06:58,790 --> 00:06:56,560

so unique it had so many different

92

00:07:01,430 --> 00:06:58,800

aspects between the microgravity as well

93

00:07:03,749 --> 00:07:01,440

as the life science and we have just

94

00:07:05,670 --> 00:07:03,759

been thrilled to be able to accomplish

95

00:07:06,790 --> 00:07:05,680

all that we were able to accomplish to

96

00:07:08,710 --> 00:07:06,800

tell you the truth coming into this

97

00:07:10,469 --> 00:07:08,720

mission i don't think i was sure it

98

00:07:11,749 --> 00:07:10,479

could be done and these guys have been

99

00:07:13,110 --> 00:07:11,759

outstanding

100

00:07:15,670 --> 00:07:13,120

in the sense that they've been able to

101
00:07:17,670 --> 00:07:15,680
get right to it and do things had a few

102
00:07:19,830 --> 00:07:17,680
glitches but they got fixed thanks to

103
00:07:21,270 --> 00:07:19,840
the great support we had from the ground

104
00:07:24,309 --> 00:07:21,280
and you can't ask for more than that

105
00:07:30,950 --> 00:07:26,710
that concludes our question sir from jsc

106
00:07:33,350 --> 00:07:30,960
columbia please stand by for kscpao

107
00:07:36,390 --> 00:07:33,360
columbia this is kennedy pao how do you

108
00:07:40,870 --> 00:07:38,070
columbia regional lock and clear and

109
00:07:43,270 --> 00:07:40,880
we're ready for the questions

110
00:07:45,990 --> 00:07:43,280
this is irene brown with upi for um tom

111
00:07:48,870 --> 00:07:46,000
hanricks i don't know what you know of

112
00:07:51,189 --> 00:07:48,880
the saudi bombing that happened last

113
00:07:53,670 --> 00:07:51,199

week and i was wondering if you there's

114

00:07:56,070 --> 00:07:53,680

a memorial service this afternoon for

115

00:07:58,469 --> 00:07:56,080

five of the crew members who are from a

116

00:08:00,230 --> 00:07:58,479

unit that also supports

117

00:08:02,070 --> 00:08:00,240

nasa's shuttle launches i was wondering

118

00:08:04,070 --> 00:08:02,080

if you knew any of these people from

119

00:08:05,350 --> 00:08:04,080

previous shuttle missions or training

120

00:08:10,150 --> 00:08:05,360

and if you had any thoughts on the

121

00:08:15,350 --> 00:08:13,110

well we have seen saudi arabia uh

122

00:08:17,749 --> 00:08:15,360

several times during the mission

123

00:08:19,830 --> 00:08:17,759

and we regret that there were any loss

124

00:08:22,790 --> 00:08:19,840

of life and especially

125

00:08:23,990 --> 00:08:22,800

loss of military members that some of us

126

00:08:26,790 --> 00:08:24,000

may have known

127

00:08:29,430 --> 00:08:26,800

we were notified by message but we have

128

00:08:31,589 --> 00:08:29,440

not seen a list of the casualties

129

00:08:33,269 --> 00:08:31,599

our sympathies go out to those that the

130

00:08:35,509 --> 00:08:33,279

lost loved ones and our prayers go out

131

00:08:38,389 --> 00:08:35,519

to those that are still in the recovery

132

00:08:41,430 --> 00:08:38,399

and from space so we do not see

133

00:08:42,949 --> 00:08:41,440

the conflicts that humans are

134

00:08:44,870 --> 00:08:42,959

going under

135

00:08:46,949 --> 00:08:44,880

on the earth we just see a beautiful

136

00:08:49,269 --> 00:08:46,959

earth and we wish that we could share

137

00:08:53,509 --> 00:08:49,279

that perspective and help bring peace

138

00:08:57,990 --> 00:08:55,509

this is stephen young with reuters for

139

00:08:59,990 --> 00:08:58,000

susan helms i was wondering how you're

140

00:09:02,150 --> 00:09:00,000

feeling um this far into the mission

141

00:09:03,509 --> 00:09:02,160

which is longer than than many shuttle

142

00:09:06,870 --> 00:09:03,519

flights uh

143

00:09:09,430 --> 00:09:06,880

previously and you seem to be quite uh

144

00:09:10,949 --> 00:09:09,440

keen to go longer than 17 days how much

145

00:09:16,790 --> 00:09:10,959

longer do you think

146

00:09:20,230 --> 00:09:18,389

well you're right this is going to be my

147

00:09:21,509 --> 00:09:20,240

longest mission i've had two before and

148

00:09:24,470 --> 00:09:21,519

one of them was six days and the other

149

00:09:27,190 --> 00:09:24,480

one was 11 to 12 days and uh looks like

150

00:09:29,750 --> 00:09:27,200

we're at the 11 day point today and i

151
00:09:31,350 --> 00:09:29,760
i'm feeling great i'm feeling better

152
00:09:33,269 --> 00:09:31,360
than i ever thought

153
00:09:35,590 --> 00:09:33,279
absolutely no problems

154
00:09:37,190 --> 00:09:35,600
with with any of my physiological uh

155
00:09:39,430 --> 00:09:37,200
being because i've been getting exercise

156
00:09:40,870 --> 00:09:39,440
and eating well and sleeping well and

157
00:09:42,310 --> 00:09:40,880
done that in the past but there's no

158
00:09:44,070 --> 00:09:42,320
change for this mission so things are

159
00:09:46,070 --> 00:09:44,080
going extremely well

160
00:09:47,509 --> 00:09:46,080
as far as how long we could go on this

161
00:09:49,190 --> 00:09:47,519
flight unfortunately we don't have the

162
00:09:51,269 --> 00:09:49,200
consumables to get beyond a certain

163
00:09:53,990 --> 00:09:51,279

point and that's probably about flight

164

00:09:55,590 --> 00:09:54,000

day 19 or 20 and if that's what they

165

00:09:57,110 --> 00:09:55,600

want to give to us we would take it but

166

00:09:59,670 --> 00:09:57,120

i suspect we're probably going to land

167

00:10:01,190 --> 00:09:59,680

on sunday and the next time around maybe

168

00:10:05,110 --> 00:10:01,200

my next flight will be even longer than

169

00:10:07,269 --> 00:10:05,120

this one and that would be great

170

00:10:09,750 --> 00:10:07,279

robin soriano with florida today for

171

00:10:11,190 --> 00:10:09,760

susan kevin or tom you've had the chance

172

00:10:13,110 --> 00:10:11,200

on this flight to use video

173

00:10:15,829 --> 00:10:13,120

teleconferencing to fix things and to

174

00:10:17,430 --> 00:10:15,839

talk with families i wonder how that

175

00:10:22,949 --> 00:10:17,440

has made a difference as compared to

176

00:10:26,790 --> 00:10:24,069

well the

177

00:10:28,069 --> 00:10:26,800

kca or the video teleconferencing that

178

00:10:29,990 --> 00:10:28,079

we've been using has really been

179

00:10:32,630 --> 00:10:30,000

outstanding

180

00:10:34,550 --> 00:10:32,640

we showed it when we

181

00:10:37,509 --> 00:10:34,560

fixed the bubble dropped experiment it

182

00:10:39,509 --> 00:10:37,519

was a lot easier to talk to people with

183

00:10:42,790 --> 00:10:39,519

a two-way communication they could show

184

00:10:45,190 --> 00:10:42,800

us diagrams they could point exactly

185

00:10:47,990 --> 00:10:45,200

the item that we needed to fix as

186

00:10:50,230 --> 00:10:48,000

opposed to sending up a message and then

187

00:10:52,230 --> 00:10:50,240

trying to interpret the message it also

188

00:10:54,790 --> 00:10:52,240

has been a morale booster because we've

189

00:10:55,670 --> 00:10:54,800

been able to uh talk to our families

190

00:10:57,750 --> 00:10:55,680

with

191

00:11:00,389 --> 00:10:57,760

the new video teleconference so i think

192

00:11:01,750 --> 00:11:00,399

it's a great state a step in the future

193

00:11:02,790 --> 00:11:01,760

and i think

194

00:11:06,069 --> 00:11:02,800

they'll probably have it on the

195

00:11:10,550 --> 00:11:08,470

bill harwood for cbs news uh for anyone

196

00:11:11,670 --> 00:11:10,560

really uh commander henrich you talk to

197

00:11:13,590 --> 00:11:11,680

the group in houston that's in the

198

00:11:15,670 --> 00:11:13,600

chamber the life support chamber that

199

00:11:17,269 --> 00:11:15,680

they're testing regenerative life

200

00:11:19,590 --> 00:11:17,279

support systems the other day and i'm

201
00:11:20,949 --> 00:11:19,600
curious from your perspective on a 17

202
00:11:22,310 --> 00:11:20,959
day mission and thinking about shannon

203
00:11:23,829 --> 00:11:22,320
lucid on mir

204
00:11:25,590 --> 00:11:23,839
how does it shake out in terms of the

205
00:11:27,670 --> 00:11:25,600
psychological pressures on living with a

206
00:11:29,670 --> 00:11:27,680
large group of people in a small area

207
00:11:31,190 --> 00:11:29,680
versus the medical sorts of things you

208
00:11:32,710 --> 00:11:31,200
guys are studying what's what's kind of

209
00:11:35,590 --> 00:11:32,720
the balance there for long-term space

210
00:11:39,750 --> 00:11:37,509
well we can only speak from this

211
00:11:42,470 --> 00:11:39,760
experience and from this experience it's

212
00:11:44,630 --> 00:11:42,480
been absolutely fantastic working as a

213
00:11:46,790 --> 00:11:44,640

team together in fact what you're seeing

214

00:11:48,790 --> 00:11:46,800

here is just a small part of the team

215

00:11:49,990 --> 00:11:48,800

the entire team includes all the people

216

00:11:52,550 --> 00:11:50,000

in houston

217

00:11:54,949 --> 00:11:52,560

at huntsville alabama and at the primary

218

00:11:57,190 --> 00:11:54,959

investigator sites around the world and

219

00:11:58,710 --> 00:11:57,200

we're just a visible part of that team

220

00:12:00,470 --> 00:11:58,720

four of us are the subjects for the

221

00:12:01,829 --> 00:12:00,480

majority of the experiments

222

00:12:03,910 --> 00:12:01,839

and we don't feel that we're in an

223

00:12:05,750 --> 00:12:03,920

enclosed environment uh through the

224

00:12:08,949 --> 00:12:05,760

communications that we have we feel like

225

00:12:10,790 --> 00:12:08,959

we're just a member of the team and

226

00:12:12,790 --> 00:12:10,800

although it may be

227

00:12:15,829 --> 00:12:12,800

it appears to be a small confined

228

00:12:18,870 --> 00:12:15,839

environment to us it seems very roomy we

229

00:12:20,710 --> 00:12:18,880

can wander between the space lab and the

230

00:12:22,949 --> 00:12:20,720

flight deck look out the window come

231

00:12:25,670 --> 00:12:22,959

back and do some work and we don't have

232

00:12:27,590 --> 00:12:25,680

a problem at all with 17 days and with

233

00:12:29,030 --> 00:12:27,600

this sort of communication capabilities

234

00:12:31,350 --> 00:12:29,040

and the roominess that we have with the

235

00:12:33,430 --> 00:12:31,360

laboratory or the future space station i

236

00:12:35,990 --> 00:12:33,440

don't see a problem with the long-term

237

00:12:38,230 --> 00:12:36,000

flights and of course uh shannon lewson

238

00:12:40,310 --> 00:12:38,240

can give us a better perspective from

239

00:12:41,670 --> 00:12:40,320

here

240

00:12:44,069 --> 00:12:41,680

this is the filter on earth news for

241

00:12:47,350 --> 00:12:44,079

rick linehan uh what's it like as a

242

00:12:49,590 --> 00:12:47,360

veterinarian that handling these large

243

00:12:59,269 --> 00:12:49,600

two-legged mammals instead of your

244

00:13:02,629 --> 00:13:01,190

well i suppose you're referring to us or

245

00:13:05,190 --> 00:13:02,639

at least the four members of the payload

246

00:13:07,910 --> 00:13:05,200

crew and uh i i used to joke about that

247

00:13:09,430 --> 00:13:07,920

um we we are the experiment on this

248

00:13:11,590 --> 00:13:09,440

flight and uh

249

00:13:14,230 --> 00:13:11,600

over the uh excess of two weeks of the

250

00:13:16,230 --> 00:13:14,240

flight we'll be studying uh muscle bone

251

00:13:18,310 --> 00:13:16,240

uh calcium metabolism uh different

252

00:13:19,910 --> 00:13:18,320

physiologies this pertains to how a

253

00:13:22,550 --> 00:13:19,920

human might

254

00:13:24,150 --> 00:13:22,560

live long term in space and uh as

255

00:13:26,150 --> 00:13:24,160

commander henricks has talked about uh

256

00:13:29,509 --> 00:13:26,160

this is sort of a prelude to

257

00:13:30,949 --> 00:13:29,519

stay on the space station a lot of the

258

00:13:33,110 --> 00:13:30,959

studies that we're doing here actually

259

00:13:35,110 --> 00:13:33,120

are being done on a long term with this

260

00:13:37,829 --> 00:13:35,120

many many people in a group for the

261

00:13:39,509 --> 00:13:37,839

first time and we'll use all this data

262

00:13:42,310 --> 00:13:39,519

uh to uh

263

00:13:43,990 --> 00:13:42,320

step man and staff the space station

264

00:13:45,350 --> 00:13:44,000

and uh figure out better ways to keep

265

00:13:46,949 --> 00:13:45,360

people in space learning keep them

266

00:13:49,509 --> 00:13:46,959

healthier stop the muscle and bone

267

00:13:50,870 --> 00:13:49,519

degeneration and as a spin-off of that

268

00:13:52,870 --> 00:13:50,880

we're also able to use this data

269

00:13:54,949 --> 00:13:52,880

hopefully uh to look at the disease

270

00:13:57,030 --> 00:13:54,959

processes which occur in our elderly

271

00:13:58,310 --> 00:13:57,040

population on the ground and hopefully

272

00:14:00,470 --> 00:13:58,320

uh

273

00:14:07,990 --> 00:14:00,480

down the line use this as a way to

274

00:14:11,750 --> 00:14:09,829

tell me for any young people who are

275

00:14:13,509 --> 00:14:11,760

aspiring to be just like you who are

276

00:14:15,189 --> 00:14:13,519

home here in north carolina any advice

277

00:14:23,030 --> 00:14:15,199

you want to give to an aspiring new

278

00:14:27,030 --> 00:14:25,350

well i think uh you know it's been fun

279

00:14:28,629 --> 00:14:27,040

we had a chance to talk with many school

280

00:14:30,790 --> 00:14:28,639

kids all the crew members here

281

00:14:32,470 --> 00:14:30,800

participating with sarix amateur radio

282

00:14:34,310 --> 00:14:32,480

and so we talked to the schools around

283

00:14:36,790 --> 00:14:34,320

around the world and listening to my

284

00:14:38,470 --> 00:14:36,800

crewmates and myself i think we uh we

285

00:14:41,030 --> 00:14:38,480

all agree that uh

286

00:14:42,949 --> 00:14:41,040

to work hard to dream those dreams and

287

00:14:45,430 --> 00:14:42,959

to not give up on dreams

288

00:14:46,310 --> 00:14:45,440

and to take good care of oneself and

289

00:14:48,470 --> 00:14:46,320

to keep

290

00:14:49,990 --> 00:14:48,480

working as you as a team

291

00:14:52,150 --> 00:14:50,000

trusting in people and helping each